Northeastern

Analyzing Hospital Performance For InPatient And OutPatient

Project Design Document

by

Team Data Biryani

(Team- 6)

Course: INFO 7290 Data Warehouse & Business Intelligence SEC 01

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Document Revision History:

Date	Stakeholders	Name	Details
3/15/20	All Members	Initial Proposal of the project	This document contains basic project proposal details.
4/08/20	All Members	Design document	Details regarding staging, column types and more granular insights about the data flow in the Data Warehouse

Objectives:

Main aim of our project is to use ETL process to combine data sets which contain information about **inpatient**, **outpatient,** outpatient by **Ambulatory Payment Classification** (APC)/ **Healthcare Common Procedure Coding System** (HCPCS) classification and hospital performance by state level in USA over period of 3 years to achieve following objectives:

- To Analyse the cost involved in inpatient medical procedures classified by DRG definition by medical providers across the USA.
- To Analyse the cost involved in outpatient medical procedures classified by APC definition by medical providers across the USA.
- To breakdown different **Ambulatory Payment Classification** (APC) procedure codes with respective **Healthcare Common Procedure Coding System (**HCPCS) procedures to achieve granular cost break down for outpatients
- To measure hospital performances by comparing outpatient medical costs against national average

Data Description:

Data Sets used for this project are from 2015 - 2017 involving 4 different data sources. Here we have reviewed and analyzed each column of every data source. Description of each column is mentioned in the table below. There were some medical,financial terms and abbreviations which were referred for better analysis and understanding by using different links mentioned in the same table such as Risk Standardized Payment(RSP),MS-DRG , Average Medicare payments etc.

(i)Hospital Payment and Performance:

In this data set we get the information related to mortality and payment rate categorized as Average, High, Low and Payments are categorized as high and low.
https://data.medicare.gov/Hospital-Compare/Payment-and-value-of-care-Hospital/c7us-v4mf

(ii)Medicare outpatients HCPCS/APC:

This Dataset has Healthcare Common Procedure Coding System (HCPCS) code for outpatients, which is necessary for providers to submit healthcare claims to Medicare and other health insurances. It is further divided into Level I and Level II APCs.

https://data.cms.gov/Medicare-Outpatient/State-Summary-of-Outpatient-Hospital-Charge-Data-b/iwge-h6r6

(iii)Medicare inpatients:

Here we get DRG information, the payments of inpatients are categorized as per DRG, or diagnostic related grouping,

DRGs are how Medicare and some health insurance companies categorize hospitalization costs and determine how much to pay for a patient's hospital stay.

https://data.cms.gov/Medicare-Inpatient/Inpatient-Prospective-Payment-System-IPPS-Provider/tcsp-6e99

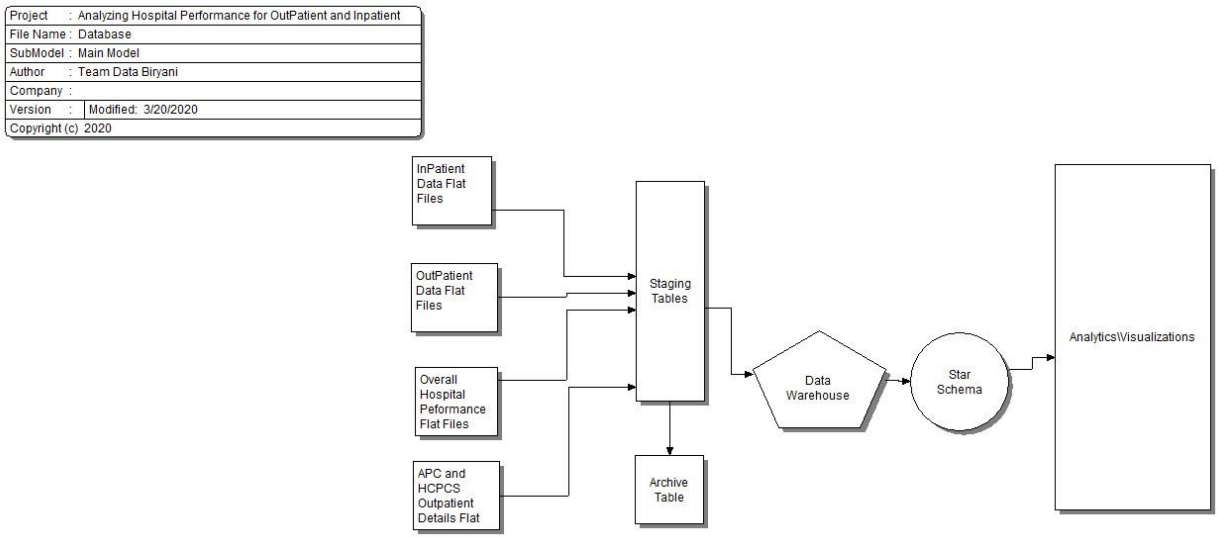
(iv) Medicare outpatients by APC:

In this dataset we get APC information, the payments of Outpatient are categorized as per APCs, or Ambulatory Payment Classifications,

APC is provided for all the outpatients; APCs are the United States government's method of paying for facility outpatient services for Medicare.

https://data.cms.gov/Medicare-Outpatient/Provider-Outpatient-Hospital-Charge-Data-by-APC-CY/7hhk-4rbf

High level Data flow in Data Warehouse:



Staging tables:

All the four data sets will be loaded into four separate staging tables namely.

- Staging_Inpatient
- Staging_Outpatient
- Staging_HCPCS
- Staging_Hospital_Performance.

Staging_Inpatient:

Staging - Inpatient Prospective Payment System		
ID	Field Name	Data Type
1	DRG Code	Char(5)
2	DRG Definition	Varchar(255)
3	Provider ID	Char(6)
4	Provider Name	Varchar(255)
5	Provider City	Varchar(255)
6	Provider State	Varchar(255)
7	Provider Zip Code	Char(6)
8	Total Discharges	Int
9	Avg_In_covered_charges	Int
10	Avg_total_payments	Int
11	Avg_medicare_payments	Int

Staging_Outpatient:

Staging - Outpatient		
ID	Field Name	Data Type
1	APC	Char(5)
2	APC Description	Varchar(255)
3	Provider ID	Char(6)
4	Beneficiaries	int
5	No_of_APC services	Varchar(255)
6	Provider Zip Code	Char(6)
7	Avg_Out_submitted_charg	Int
8	Avg_medicare_payment_a	Int
9	Avg_medicare_allowed_ar	Int

Staging_Hospital_Performance:

Staging - Hospital_performance		
ID	Field Name	Data Type
1	Provider ID	Char(5)
2	Provider Zip Code	Char(6)
3	Payment_measure_ID	Char(7)
4	Payment_measure_name	Varchar(255)/in
5	Payment_category	Varchar(255)
6	Total_patients	Int

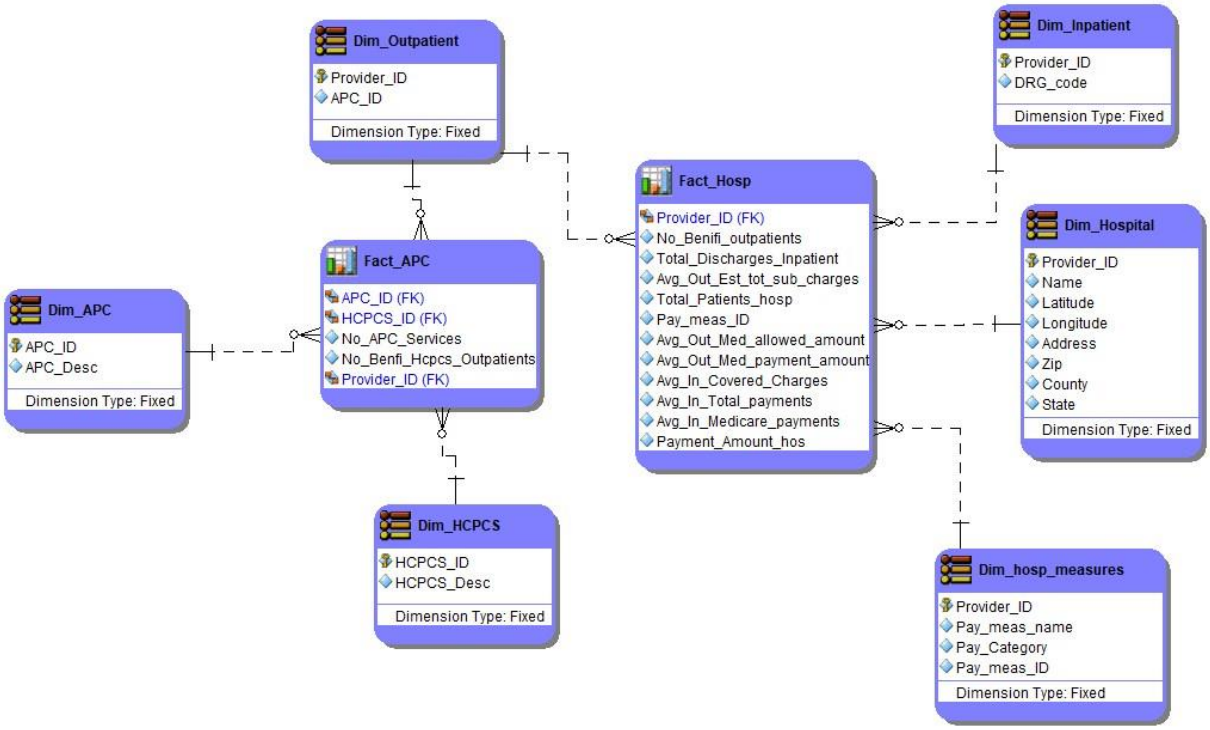
Staging_HCPCS:

Staging - HCPCS outpatient data		
ID	Field Name	Data Type
1	APC	Char(5)
2	HCPCS ID	Char(6)
3	HCPCS description	Varchar(255)
4	Beneficaries	int
5	State	Varchar(255)
6	Avg_Out_submitted_charg	Int
7	state	Int
8	Avg_medicare_allowed_ar	Int

Staging_Final:

Final_Staging		
ID	Field Name	Data Type
1	DRG Code	Char(5)
2	DRG Definition	Varchar(255)
3	Provider ID	Char(6)
4	Provider Name	Varchar(255)
5	Provider City	Varchar(255)
6	Provider State	Varchar(255)
7	Provider Zip Code	Char(6)
8	Total_Discharges_Inp	Int
9	Avg_In_covered_charges	Int
10	Avg_In_total_payments	Int
11	Avg_In_medicare_paymen	Int
12	APC	Char(5)
13	APC_Description	Varchar(255)
14	Beneficiaries_out	int
15	No_of_APC services	Varchar(255)
16	Avg_out_medicare_payme	Int
17	Avg_out_medicare_allowe	Int
18	Payment_measure_ID	Char(7)
19	Payment_measure_name	Varchar(255)/
20	Payment_category	Varchar(255)
21	Total_patients_HOP	Int
22	Avg_out_submitted_charg	Int

Data Model:


Dim_Outpatient
Provider_ID
APC_ID
Dimension Type: Fixed
Dim_Inpatient
Provider_ID
DRG_code
Dimension Type: Fixed
Fact_Hosp
Provider_ID (FK)
No_Benifi_outpatients
Total_Discharges_Inpatient
Avg_Out_Est_tot_sub_charges
Total_Patients_hosp
Pay_meas_ID
Avg_Out_Med_allowed_amount
Avg_Out_Med_payment_amount
Avg_In_Covered_Charges
Avg_In_Total_payments
Avg_In_Medicare_payments
Payment_Amount_hos
Dim_Hospital
Provider_ID
Name
Latitude
Longitude
Address
Zip
County
State
Dimension Type: Fixed
Fact_APC
APC_ID (FK)
HCPCS_ID (FK)
No_APC_Services
No_Benfi_Hcpcs_Outpatients
Provider_ID (FK)
Dim_APC
APC_ID
APC_Desc
Dimension Type: Fixed
Dim_HCPCS
HCPCS_ID
HCPCS_Desc
Dimension Type: Fixed
Dim_hosp_measures
Provider_ID
Pay_meas_name
Pay_Category
Pay_meas_ID
Dimension Type: Fixed

Hospital Performance:

Payment measures and value of care displays provider (Hospital) data. This data set includes provider data for the payment measures and value of care displays.

ID	Column	Data Type	Data Definition	Data Size	Example
1	Facility ID	Text	This is a Certification Number (CCN) for the hospital Centers for Medicare & Medicaid Services(CMS) and Certification Number (CCN). The common length of the hospital ID of the hospital is 6 and the data column is filled with numbers.	10 bytes	10001
2	Facility Name	Text	Hospital Name	300 bytes	ABBEVILLE AREA MEDICAL CENTER
3	Address	Text	● Hospital Location Address. ● Includes numbers, characters and also special characters.	200 bytes	420 THOMSON CIRCLE
4	City	Text	● Hospital's City. ● Data contains characters.	50 bytes	ABBEVILLE
5	State	Text	● Hospital's State. ● State's abbreviations used for describing them and mostly contains 2 letter state names.	2 byte	SC
6	ZIP Code	Text	● Hospital's Zip Code. ● Contains numbers with fixed length of 5 characters.	6 bytes	29620
7	County Name	Text	● Hospital's County. ● Name of the county where the hospital is located.	50 bytes	ABBEVILLE

8	Phone Number	Text	● Hospital's phone number. ● Includes the phone number with a length of 14. ● The general start of the field is with an opening brace followed by 3 numeric fields followed by closed braces and then 3 numbers with a dash and finally by 4 numbers.	15 bytes	(864) 366-5011
9	Payment Measure ID	Text	● Id of the payment measure ● Id description of the payment with general notation of 4 characters followed by underscore and then some numeric code ,followed by underscore and then characters	20 bytes	PAYM_30_HF
10	Payment Measure Name	Text	● Name of the payment measure ● Payment measure categorized in the hospital	50 bytes	Payment for heart failure patients
11	Payment Category	Text	This field is categorized into 3 different categories which are Less than ,Greater than and Equal . 1) Payment charged to the patient is on the basis of a 95% interval estimate of the hospital in comparison to the national average. 2) If there are less than 25 reporting cases in that hospital, then it is categorized in different category named as “Number of cases too small"	80 bytes	1)Number of Cases Too Small. 2)Less Than the National Average Payment.
12	Denominator	Text	Number of eligible inpatients who are included in the measure of the payment method.	20 bytes	77

13	Payment	Text	Hospital's have a risk-standardized payment (RSP) for the measurement period. RSP is a risk-standardized complication rate that informs healthcare providers to improve hospital care, strengthen incentives for quality improvement, and provide consumers with information to help them choose a hospital for elective surgical procedure. Reference: https://www.qualitynet.org/inpatient/measures	20 bytes	$15,237
14	Lower estimate	Text	● This is the lower limit of 95% interval estimate for the hospital's payment. ● It includes a special character followed by numbers in basic number format with combination commas.	20 bytes	$13,274
15	Higher estimate	Text	● This is the upper limit of 95% interval estimate for the hospital's payment. ● It includes a special character followed by numbers in basic number format with combination commas.	20 bytes	$17,103
16	Payment footnote	Text	● Footnote provided in this measure. ● Special description provided for that particular type of payment method.	5 bytes	1
17	Value of care display name	Text	Name of the value of care which is listed and displayed by the hospital.	100 bytes	Value of Care Heart Failure measure
18	Value of care display ID	Text	ID for the value of care for that particular measure	50 bytes	MORT_PAYM_30_HF

19	Value of care category	Text	Hospital categorization to value of care according to the common standard. **Example:** Value of Care Pneumonia measure is categorized under Average Mortality and Average Payment	80 bytes	Average Mortality and Lower Payment
20	Value of care footnote	Text	Special footnote provided by the hospital for that particular value of care measure.	5 bytes	13
21	Start Date	Date and Time	Date when the patient joined.	10 bytes	07/01/2015
22	End Date	Date and Time	Date when the patient was discharged.	10 bytes	06/30/2018
23	Location	Point	Latitude and longitude which points to the Location of the hospital.	80 bytes	POINT (-91.169288 38.195574)

State Summary of Outpatient Hospital Charge Data by APC and primary HCPC

ID	Column	Data Type	Data Definition	Data Size	Example
1	APC	Text	This 4-character length code represents Ambulatory Payment Classification which is USA's method of paying for outpatient services	10 bytes	5072
2	State	Text	This represents state abbreviations, it is used to group APC services by state. This field is 2 character long	10 bytes	AK
3	HCPCS	Text	This column consists of HCPCS code of 5-character length, each HCPCS code corresponds to a APC	10 bytes	10140

			code		
4	HCPCS description	Text	This column describes what each HCPCS code means	300 bytes	Drainage of blood
5	Beneficiaries	Number	This field tells us about number of patients who benefited from these HCPCS services	10 bytes	14
6	Average_Total_Submitted_Charges	Number	This field has $ symbol followed by number representing average total charges submitted for a HCPCS services by state	20 bytes	$10,956
7	Average_medicare_allowed_amount	Number	This field has $ symbol followed by number representing average amount that Medicare can cover	20 bytes	$1,546.21
8	Average_medicare_payment_amount	Number	This field has $ symbol followed by number representing average amount that Medicare companies payed for the services	20 bytes	$1,231.93

Inpatient Prospective Payment System (IPPS) and Provider Summary for All Diagnosis-Related Groups (DRG)

ID	Column	Data Type	Data Definition	Data Size	Example
1	DRG Definition	Text	Code and description of a drug DRG definition is the Drug description of MS-DRGs which classifies the groups same diagnoses(clinical condition) and procedures provided by the hospital during the stay General values are 3 digit drug code followed by ' - ' and the description of the drug.	200 bytes	981 - EXTENSIVE O.R. PROCEDURE UNRELATED TO PRINCIPAL DIAGNOSIS W MCC

2	Provider Id	Text	This is a Certification Number (CCN) for the hospital Centers for Medicare & Medicaid Services(CMS) and Certification Number (CCN). The common length of the hospital ID of the hospital is 6 and the data column is filled with numbers.	10 bytes	500044
3	Provider Name	Text	Hospital name	80 bytes	MULTICARE DEACONESS HOSPITAL
4	Provider Street Address	Text	● Hospital Location Address. ● Includes numbers, characters and also special characters.	200 bytes	W 800 FIFTH AVENUE
5	Provider City	Text	● Hospital's City. ● Data contains characters.	50 bytes	SPOKANE
6	Provider State	Text	● Hospital's State. ● State's abbreviations used for describing them and mostly contain 2 letter state names.	2 byte	WA
7	Provider Zip Code	Text	● Zip code of the provider ● Zip code of the provider containing a length of 5-6 numeric digits	6 bytes	99210
8	Hospital Referral Region(HRR) Description	Text	● Hospital Referral Region (HRR) where the provider is located. ● This describes the hospital's referral region location. ● The general pattern is 2 letter state code followed by the - and city name.	20 bytes	WA - Spokane
9	Total Discharges	Number	● Total number of discharges billed by the provider for inpatient hospital services. ● This describes the provider charging the total discharges billed for inpatient hospital services. ● It contains the numeric values	5 bytes	12

10	Average Covered Charges	Number	● Charge provided to the provider by the hospitals for all discharges in MS-DRG. ● This charge will vary from hospitals to hospitals as different hospitals have different operating costs and charges for MS-DRG.	20 bytes	$175,663.75
11	Average Total Payments	Number	● Average payment to all the providers for the MS-DRG. ● The average total payments to all providers for the MS-DRG including the MS-DRG amount, teaching, disproportionate share, capital, and outlier payments for all cases. Also included in average total payments are payment and deductible amounts that the patient is responsible for and any additional payments by third parties for coordination of benefits.	20 bytes	$35,089.42
12	Average Medicare Payments	Number	● The average amount that Medicare pays to the provider for Medicare's share of the MS-DRG. ● This includes the MS-DRG amount, teaching, disproportionate share, capital, and outlier payments for all cases. Medicare payments DO NOT include beneficiary payments and deductible amounts nor any additional payments from third parties for coordination of benefits.	20 bytes	$34,324.00

Provider Outpatient Hospital Charge Data by APC

ID	Column	Data Type	Definition	Data Size	Example
1	Provider ID	Text	Provider ID numbers are referred to as National Provider Identifiers (NPI). It is created using doctors name and location. So, here in this dataset we have an ID for outpatient hospital services.	6 byte	010001
2	Provider Name	Text	The name of the provider for Outpatient services	100 bytes	Southeast Alabama Medical Center
3	Provider Street Address	Text	Street address of the provider where they are physically present	150 bytes	1108 Ross Clark Circle
4	Provider City	Text	The city in which the provider is physically located.	100 bytes	Dothan
5	Provider State	Text	The state in which the provider is physically located.	2 byte	AL
6	Provider Zip Code	Text	The Zip code in which the provider is physically located.	5 byte	36301
7	Provider HRR	Text	Hospital Referral Region	150 bytes	AL - Dothan
8	APC	Text	Outpatient APC Code (Ambulatory payment classification) is necessary for providers to submit healthcare claims to Medicare and other health insurances. It is further divided into Level I and Level II.	4 byte	5123

9	APC Description	Text	This column describes the APC code. Outpatient APC Code (Ambulatory payment classification) is necessary for providers to submit healthcare claims to Medicare and other health insurances. It is further divided into Level I and Level II.	150 bytes	Level 3 Musculoskeletal Procedures
10	Beneficiaries	Number	Beneficiaries column is giving the count of individuals who are entitled to benefits under Medicare	4 byte	159
11	Comprehensive APC Services	Number	The number of primary HCPCS services billed by the provider for outpatient hospital services.	4 byte	161
12	Average Estimated Total Submitted Charges	Number	The provider's average estimated submitted charge for services covered by Medicare for the APC. These will vary from hospital to hospital because of differences in hospital charge structures.	10 bytes	$191,543
13	Average Medicare Allowed Amount	Number	The average of total regular payments the provider receives for the APC. It includes both Medicare direct provider payments as well as beneficiaries' co-payment and deductible payments. It excludes special outlier payments which is reported in a separate column.	10 bytes	$3977
14	Average Medicare Payment Amount	Number	The average of total regular payments the provider receives directly from Medicare. It excludes special outlier payments which is reported in a separate column. Reference: http://www.cms.gov/Outreach-and-Education/Outreach/FFSProvPartProg/Downloads/2013-03-08-standalone.pdf	10 bytes	$3168

15	Outlier Comprehensive APC Services	Number	The number of comprehensive APC services with outlier payments. This variable is blank in cases where the number of outlier services is fewer than 11.	3 byte	0
16	Average Medicare Outlier Amount	Number	The average of outlier payments the provider receives directly from Medicare. OPPS APC payment amounts are based on the average costs for a set of services. In the event that a hospital's costs for these services exceed a given threshold tied to the average APC payment, CMS must issue an outlier payment to the hospital to that service to compensate for the costly provision of service. This variable is blank in cases where the number of outlier services is fewer than 11.	5 byte	$0

ETL MAPPING:

Id	Source	Source column	Data type	Transformation logic	Target	Target column	Data type
1.1	Inpatient csv file	DRG	Text	NA	Staging_Inpatient	DRG Code	Char(5)
1.2	Inpatient csv file	DRG Definition	Text	NA	Staging_Inpatient	DRG Definition	Varchar(255)
1.3	Inpatient csv file	Provider ID	Text	NA	Staging_Inpatient	Provider ID	Char(6)
1.4	Inpatient csv file	Provider Name	Text	NA	Staging_Inpatient	Provider Name	Varchar(255)
1.5	Inpatient csv file	Provider City	Text	NA	Staging_Inpatient	Provider City	Varchar(255)
1.6	Inpatient csv file	Provider State	Text	NA	Staging_Inpatient	Provider State	Varchar(255)

1.7	Inpatient csv file	Provider Zip Code	Text	NA	Staging_Inpatient	Provider Zip Code	Char(6)
1.8	Inpatient csv file	Total Discharges	Number	NA	Staging_Inpatient	Total Discharges	Int
1.9	Inpatient csv file	Average covered charges	Number	NA	Staging_Inpatient	Avg_In_covered_charges	Int
1.1	Inpatient csv file	Average total payments	Number	NA	Staging_Inpatient	Avg_total_payments	Int
1.1	Inpatient csv file	Average medicare payments	Number	NA	Staging_Inpatient	Avg_medicare_payments	Int
1.12	Staging_Inpatient	DRG Code	Char(5)	Creating Lookup task to cross check DRG code	Final_staging	DRG_Code	Char(5)
1.13	Staging_Inpatient	DRG Definition	Varchar(255)	NA	Final_staging	DRG_Definition	Varchar(255)
1.14	Staging_Inpatient	Provider ID	Char(6)	NA	Final_staging	Provider_ID	Char(6)
1.15	Staging_Inpatient	Provider Name	Varchar(255)	NA	Final_staging	Provider_Name	Varchar(255)
1.16	Staging_Inpatient	Provider City	Varchar(255)	NA	Final_staging	Provider_City	Varchar(255)
1.17	Staging_Inpatient	Provider State	Varchar(255)	Creating Lookup task to cross check state abbreviation	Final_staging	Provider_State	Varchar(255)
1.18	Staging_Inpatient	Provider Zip Code	Char(6)	Creating Lookup task to cross check zip code	Final_staging	Provider_Zip_Code	Char(6)
1.19	Staging_Inpatient	Total Discharges	Int	NA	Final_staging	Total_Discharges_Inp	Int
1.2	Staging_Inpatient	Avg_In_covered_charges	Int	Create Computed columns to $ symbol by using	Final_staging	Avg_In_covered_charges	Int

				substring function			
1.21	Staging_Inpatient	Avg_total_payments	Int	Create Computed columns to $ symbol by using substring function	Final_staging	Avg_In_total_payments	Int
1.22	Staging_Inpatient	Avg_medicare_payments	Int	Create Computed columns to $ symbol by using substring function	Final_staging	Avg_In_medicare_payments	Int
1.23	Final_staging	DRG_Code	Char(5)	NA	Dim_inpatient	DRG_Code	Char(5)
1.24	Final_staging	Provider_ID	Char(6)	NA	Dim_inpatient	Provider_ID	Char(6)
1.25	Final_staging	Provider_Name	Varchar(255)	NA	Dim_hospital	Provider_Name	Varchar(255)
1.26	Final_staging	Provider_City	Varchar(255)	NA	Dim_inpatient	Provider_City	Varchar(255)
1.27	Final_staging	Provider_State	Varchar(255)	NA	Dim_inpatient	Provider_State	Varchar(255)
1.28	Final_staging	Provider_Zip_Code	Char(6)	NA	Dim_inpatient	Provider_Zip_Code	Char(6)
1.29	Final_staging	Total_Discharges_Inp	Int	NA	Fact_Hosp	Total_Discharges_Inp	Int
1.3	Final_staging	Avg_In_covered_charges	Int	NA	Fact_Hosp	Avg_In_covered_charges	Int
1.31	Final_staging	Avg_In_total_payments	Int	NA	Fact_Hosp	Avg_In_total_payments	Int

1.32	Final_staging	Avg_In_medicare_payments	Int	NA	Fact_Hosp	Avg_In_medicare_payments	Int
2.1	Outpatient csv file	Provider ID	Char(6)	NA	Outpatient_Staging	Provider_ID	Char(6)
2.2	Outpatient CSV file	Provider Zip Code	Char(6)	NA	Outpatient Staging	Provider Zip Code	Char(6)
2.3	Outpatient CSV file	APC	Char(5)	NA	Outpatient Staging	APC	Char(5)
2.4	Outpatient CSV file	APC Description	Varchar(255)	NA	Outpatient Staging	APC Description	Varchar(255)
2.5	Outpatient CSV file	Beneficiaries	Int	NA	Outpatient Staging	Beneficiaries	Int
2.6	Outpatient CSV file	Comprehensive APC Services	Varchar(255)	NA	Outpatient Staging	Comprehensive APC Services	Varchar(255)
2.7	Outpatient CSV file	Average Estimated Total Submitted Charges	Int	NA	Outpatient Staging	Average Estimated Total Submitted Charges	Int
2.8	Outpatient CSV file	Average Medicare Allowed Amount	Int	NA	Outpatient Staging	Average Medicare Allowed Amount	Int
2.9	Outpatient CSV file	Average Medicare Payment Amount	Int	NA	Outpatient Staging	Average Medicare Payment Amount	Int
2.1	Outpatient Staging	Average Estimated Total Submitted Charges	Int	Remove $	Final Staging	Avg_Out_Submitted_Charges	Int

2.11	Outpatient Staging	Average Medicare Allowed Amount	Int	Remove $	Final Staging	Avg_Medicare_Allowed_Amount	Int
2.12	Outpatient Staging	Average Medicare Payment Amount	Int	Remove $	Final Staging	Avg_Medicare_Payment_Amount	Int
2.13	Outpatient Staging	Provider ID	Char(6)	NA	Final Staging	Provider_ID	Char(6)
2.14	Outpatient Staging	Provider Zip Code	Char(6)	NA	Final Staging	Provider Zip Code	Char(6)
2.15	Outpatient Staging	APC	Char(5)	NA	Final Staging	APC	Char(5)
2.16	Outpatient Staging	APC Description	Varchar(255)	NA	Final Staging	APC Description	Varchar(255)
2.17	Outpatient Staging	Beneficiaries	Int	NA	Final Staging	Beneficiaries	Int
2.18	Outpatient Staging	Comprehensive APC Services	Varchar(255)	NA	Final Staging	Comprehensive APC Services	Varchar(255)
2.19	Final Staging	Avg_Out_Submitted_Charges	Int	NA	Fact_Hosp	Avg_Out_Submitted_Charges	Int
2.2	Final Staging	Avg_Medicare_Allowed_Amount	Int	NA	Fact_Hosp	Avg_Medicare_Allowed_Amount	Int
2.21	Final Staging	Avg_Medicare_Payment_Amount	Int	NA	Fact_Hosp	Avg_Medicare_Payment_Amount	Int
2.22	Final Staging	Provider_ID	Char(6)	NA	Dim_Hospital	Provider_ID	Char(6)
2.23	Final Staging	Provider Zip Code	Char(6)	NA	Dim_Hospital	Provider Zip Code	Char(6)
2.24	Final Staging	APC	Char(5)	NA	Dim_APC	APC	Char(5)

2.25	Final Staging	APC Description	Varchar(255)	NA	Dim_APC	APC Description	Varchar(255)
2.26	Final Staging	Beneficiaries	Int	NA	Fact_APC	Beneficiaries	Int
2.27	Final Staging	Comprehensive APC Services	Varchar(255)	NA	Fact_APC	Comprehensive APC Services	Varchar(255)
3.1	payment and value of care csv file	Facility ID	Text	NA	staging_Hospital_Performance	Provider_ID	Char(6)
3.2	payment and value of care csv file	Zip Code	Text	NA	staging_Hospital_Performance	Zip Code	Char(6)
3.3	payment and value of care csv file	Payment Measure ID	Text	NA	staging_Hospital_Performance	payment_measure_id	Varchar (255)
3.4	payment and value of care csv file	Payment Measure Name	Text	NA	staging_Hospital_Performance	payment_measure_name	Varchar (255)
3.5	payment and value of care csv file	Payment Category	Text	NA	staging_Hospital_Performance	payment_category	Varchar (255)
3.6	staging_Hospital_Performance	Zip Code	Char(6)	Lookup, create lookup task for cross checking zip code	Final_staging	Zipcode	Char(6)
3.7	staging_Hospital_Performance	payment_measure_id	Varchar (255)	NA	Final_staging	payment_measure_id	Varchar (255)
3.8	staging_Hospital_Performance	payment_measure_name	Varchar (255)	NA	Final_staging	payment_measure_name	Varchar (255)
3.9	staging_Hospital_Performance	payment_category	Varchar (255)	NA	Final_staging	payment_category	Varchar (255)
3.1	Final_staging	payment_measure_id	Varchar (255)	NA	Dim_hosp_measures	payment_measure_id	Varchar (255)

3.11	Final_staging	payment_measure_name	Varchar (255)	NA	Dim_hosp_measures	payment_measure_name	Varchar (255)
3.12	Final_staging	payment_category	Varchar (255)	NA	Dim_hosp_measures	payment_category	Varchar (255)
4.1	HCPCS CSV file	APC	Text	N. A	Staging HCPCS table	APC	Char (5)
4.2	HCPCS CSV file	State	Text	N. A	Staging HCPCS table	State	Char (2)
4.3	HCPCS CSV file	HCPCS	Text	N. A	Staging HCPCS table	HCPCS	Char (6)
4.4	HCPCS CSV file	HCPCS description	Text	N. A	Staging HCPCS table	HCPCS_description	Varchar (255)
4.5	HCPCS CSV file	Beneficiaries	Number	N. A	Staging HCPCS table	Beneficiaries_HCPCS	Int
4.6	HCPCS CSV file	Average submitted charges	Number	N. A	Staging HCPCS table	Avg_submitted_charges_HCPCS	Int
4.7	HCPCS CSV file	Average medicare allowed amount	Number	N. A	Staging HCPCS table	Avg_medicare_allowed_amount_HCPCS	Int
4.8	HCPCS CSV file	Average medicare payment amount	Number	N. A	Staging HCPCS table	Avg_medicare_payment_amount_HCPCS	Int
4.9	Staging HCPCS table	HCPCS	Char (6)	Lookup function in SSDT – create lookup task to cross check HCPCS codes	Dim_HCPCS	HCPCS_ID	Char (6)

4.1	Staging HCPCS table	HCPCS_description	Varchar (255)	No transformation	Dim_HCPCS	HCPCS_Desc	Varchar (255)
4.11	Staging HCPCS table	Beneficiaries_HCPCS	Int	No transformation	Fact_APC	No_Benfi_HCPCS_outpatients	Int

References:

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